

## CLAIMS

1. A method for managing an advertising flight in an online marketplace among one or advertisers and one or more searchers, the method comprising:

5 receiving advertising flight parameters from an advertiser;  
from time to time, reviewing bid amounts for specified  
advertiser search terms in the pay for placement  
marketplace; and  
10 adjusting bid amounts of the specified advertiser search terms to  
achieve specified advertiser goals.

2. The method of claim 1 wherein receiving advertising flight parameters comprises:

15 receiving one or more advertiser search terms;  
receiving a flight budget; and  
receiving a flight interval.

3. The method of claim 2 further comprising:  
receiving one or more of

20 a maximum average cost per click over the received one or  
more advertiser search terms,  
a conversion rate for the advertiser; and  
an average profit per action for the advertiser.

25 4. The method of claim 1 wherein adjusting bid amounts of the  
specified advertiser search terms to achieve specified advertiser goals  
comprises:

maximizing searcher contacts with a web site of the advertiser.

5. The method of claim 1 wherein adjusting bid amounts of the specified advertiser search terms to achieve specified advertiser goals comprises:

maximizing searcher clicks to web sites of the advertiser.

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6. The method of claim 5 wherein adjusting bid amounts comprises

maximizing searcher clicks to web sites of the advertiser subject to a maximum cost per click.

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7. The method of claim 1 wherein adjusting comprises:  
varying bid amounts to maximize advertiser profit.

8. The method of claim 7 further comprising:  
varying bid amounts subject to a maximum cost per click.

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9. The method of claim 7 further comprising:  
determining advertiser profit based on multiple searcher clicks to one or more web sites of the advertiser.

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10. The method of claim 7 further comprising:  
determining advertiser profit based on conversion rate.

11. The method of claim 10 further comprising:  
determining search term conversion rates for a plurality of search terms having independent conversion rates.

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12. The method of claim 10 further comprising:  
determining search term conversion rates for a plurality of search terms at two or more ranks, search terms at each rank having independent conversion rates.

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13. The method of claim 1 wherein reviewing bid amounts comprises:

reviewing all bidding combinations for one or more search terms.

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14. The method of claim 1 wherein reviewing bid amounts comprises:

reviewing some bidding combinations.

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15. The method of claim 14 further comprising:  
determining ranks not likely to be in an optimal solution; and  
ignoring the determined ranks.

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16. The method of claim 15 further comprising:  
ignoring ranks below a threshold rank.

17. The method of claim 15 further comprising:  
ignoring ranks having fewer clicks than a click threshold.

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18. The method of claim 15 further comprising:  
ignoring ranks some distance from an optimal solution greater than  
a distance between an optimal solution and a last solution.

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19. The method of claim 15 further comprising:  
ignoring ranks having a bid amount which varies by a factor outside  
an acceptable range determined by a last solution.

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20. The method of claim 1 further comprising periodically  
recomputing bid amounts in accordance with the flight parameters.

21. The method of claim 1 further comprising:

receiving an advertiser specified maximum bid amount for one or more search terms;  
adjusting the bid amount for the one or more search terms in accordance with the maximum bid amount.

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22. The method of claim 21 further comprising:  
reducing a determined bid amount to a level that just exceeds a next-lowest bid amount.

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23. The method of claim 1 further comprising:  
receiving search queries from searchers;  
searching in a database for search terms having a match with the search queries, the database storing search terms and associated bid amounts of the one or more advertisers;  
providing search results from the search terms having a match with the search query;  
when a provided search term is clicked by a searcher, transferring economic value from the advertiser associated with the provided search term.

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24. A database search system comprising:  
a database of search terms, each search term associated with a bid amount payable by an advertiser of a plurality of advertisers;  
a search engine responsive to search queries from searchers for searching the database; and  
a flight management agent responsive to advertiser-specified parameters for adjusting bid amounts of search listings to manage expenditures over a time interval.

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25. The database search system of claim 24 wherein the flight management agent is configured to receive information about one or more search terms of an advertiser, a budget, and the time interval.

5 26. The database search system of claim 25 wherein the flight management agent is configured to receive information about one or more of a maximum average cost per click for the one or more search terms, a conversion rate and an average profit per action.

10 27. The database search system of claim 25 wherein the flight management agent is configured to spend the budget over the time interval.

15 28. The database search system of claim 25 wherein the flight management agent is configured to maximize number of clicks to a web site of an advertiser.

20 29. The database search system of claim 25 wherein the flight management agent is configured to maximize advertiser profit for an advertiser over the time interval.

25 30. The database search system of claim 29 wherein the flight management agent is configured to maximize the advertiser profit subject to a maximum price per click.

30 31. The database search system of claim 29 wherein the flight management agent is configured to maximize the advertiser profit by determining profit based on multiple searcher actions at a web site of the advertiser.

32. The database search system of claim 29 wherein the flight management agent is configured to maximize advertiser profit by determining profit based on a plurality of search terms having a plurality of conversion rates.

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33. The database search system of claim 29 wherein the flight management agent is configured to determine profit based on a plurality of search terms having different conversion rates at different ranks.

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34. The database search system of claim 25 wherein the flight management agent is configured to analyze all possible combinations of bids for the one or more search terms and select a combination that provides highest profit to the advertiser.

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35. The database search system of claim 25 wherein the flight management agent is configured to analyze only likely combinations of bids for the one or more search terms and select a combination from the likely combinations that provides highest profit to the advertiser.

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36. The database search system of claim 35 wherein the flight management agent is configured to determine search term ranks not likely to be in an optimal solution.

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37. The database search system of claim 36 wherein the flight management agent is configured to exclude search terms having a rank less than a rank threshold.

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38. The database search system of claim 36 wherein the flight management agent is configured to exclude search terms having received a number of clicks fewer than a click threshold.

39. The database search system of claim 36 wherein the flight management agent is configured to exclude search terms at a rank a distance from a solution which is greater than a distance from a previous solution.

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40. The database search system of claim 36 wherein the flight management agent is configured to exclude search terms having a bid amount varying from a previous by a predetermined amount.

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41. The database search system of claim 24 wherein the flight management agent is configured to recompute the bid amounts of the search listings from time to time.

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42. Computer program code for managing an advertising flight of an advertiser with an online marketplace system.

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43. The computer program code of claim 42 further comprising code which from time to time checks conditions in the online marketplace system and adjusts bids of advertiser search listings to ensure that advertiser-specified objectives are met.

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44. The computer program code of claim 42 further comprising code to update bid amounts of the advertiser according to advertiser-specified flight management criteria, the bid amounts being associated with advertiser search terms of a database searchable by searchers, the bid amounts representing economic value payable by the advertiser when a searcher selects a search term of the advertiser.